

Stephen J. Reese

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EDUCATION

Bachelor of Science in Mechanical Engineering, May 1993
Columbia University – School of Engineering and Applied Science, New York, NY.

Master of Science in Mechanical Engineering, anticipated August 2006
University of Idaho, Moscow, ID.

CERTIFICATION

Professional Engineer, registered in the state of Idaho.

TECHNICAL EXPERIENCE

Mechanical Engineer – September 1999 - present – Idaho National Laboratory (INL), Idaho Falls, ID.

- Coordinate and contribute to engineering research and design projects at a Department of Energy (DOE) national laboratory.
- Contributed to research projects applying laser ultrasonic techniques to evaluation of material properties and catalysis of chemical reactions.
- Evaluated and tested a filtration process for treating high level radioactive waste.
- Evaluated, tested, and refined a cryogenic/vacuum radioactive treatment process.
- Coordinated the development of a report on options for stewardship of a radioactive waste landfill.
- Contributed to a feasibility study evaluating off-gas treatment options for a vitrification facility.
- Evaluated capabilities of mixed waste treatment technologies and services available in the United States.
- Identified treatment processes and disposal options for atypical mixed (hazardous and radioactive) waste streams.

Research Engineer – August 1995 - August 1999 – University of Idaho, Idaho Falls, ID.

- Conducted experiments related to the drying and processing of spent nuclear fuel.
- Evaluated, modeled, and refined spent nuclear fuel processing systems.
- Responsible for budgets/cost estimations and preparation of grant proposals.
- Co-authored a grant proposal that resulted in a three year, \$1 million project funded by the DOE Office of Environmental Management.

Project Engineer – October 1998 - April 1999 – Callidus Engineering, Idaho Falls, ID.

- Performed thermo-fluid, finite element analyses (CFD/FEA) of a bio-medical device.

TECHNICAL EXPERIENCE (cont.)

Engineering Assistant – June - October 1993 – Engineers & Surveyors Institute, Fairfax, VA.

- Co-authored a manual defining uniform codes for the design and construction of bicycle paths in the Northern Virginia metropolitan area.
- Coordinated with facilities designers to reach consensus on the nature of the design codes to be included in the manual.

Research Assistant – September 1989 - May 1993 – Kelley Laboratory, Columbia University, New York, NY.

- Performed various histological and surgical procedures in support of research efforts in a neurobiology laboratory.

COMPUTER SKILLS

Operating Systems: Solaris UNIX, Windows

Software: Matlab, Fluent, LabVIEW

Languages: C++, C, Pascal, FORTRAN

PUBLICATIONS

S.J. Reese, D.H. Hurley, H.W. Rollins, "Effect of surface acoustic waves on the catalytic decomposition of ethanol employing a comb transducer for ultrasonic generation," accepted for publication in *Ultrasonics Sonochemistry*, November 2005.

J.C. Crepeau, S. Reese, H. McIlroy, and R. Lords, "Drying of Mock Spent Nuclear Fuels," *Drying Technology*, **16**, no. 3-5, pp. 545-60, 1998.

PROFESSIONAL SOCIETY MEMBERSHIP

Member of the American Society of Mechanical Engineers (ASME).

- Member of the Board of Directors of the Idaho Section of ASME – July 2001 - present.
- Member of the ASME Environmental Engineering Division's EPA Task Force – February - June 2004.
- Chair of the Idaho Section of ASME – July 1999 - June 2001.
- Treasurer of the Idaho Section of ASME – July 1996 - June 1999.